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I think it’s fair to say that Massachusetts voters rocked the country when they went to the polls in January and elected Republican Scott Brown to fill the Senate seat once held by Ted Kennedy. They certainly changed the equation for Senate Democrats in Washington.

People shouldn’t have been quite as surprised as they were, however. As a Massachusetts resident, I’ll admit our state is decidedly liberal. But before we elected our current Democratic Governor, Deval Patrick, we had four Republican governors in a row, including the very conservative Mitt Romney. We tend to send Democrats to the legislature and then elect Republican governors to keep an eye on them. Exit polls this time showed that we remain a liberal state. A majority of voters interviewed on election day still had a favorable opinion of President Obama and a majority still favored health care reform. They voted for Brown anyway, because they thought he would make a better Senator.

So, what did we send Brown to Washington to accomplish? Health care reform is still around, but there are a couple of other issues that may now move to the forefront that are of interest to the tree care industry – immigration reform and climate change legislation.

The environment and the role of our industry in future debates are among primary issues facing our industry. Finding a place for commercial and utility arboriculture in the green movement is not simply a matter of deciding positioning or labeling. If our industry is to reclaim the name, or tag, “green industry” from the solar panel and replacement window installers, we have some work to do.

Some of the legislation working its way through Congress could be a threat to how we’ve done things in the past. We will probably have to change practices and attitudes when the dust settles. But how – and to what end? What does it mean in our industry to advance green? Reduce or reuse more of our waste stream? Become caretakers of the entire outdoor property, not just the trees? Include more organic concepts in our care? Increase tree cover in America’s cities?

We do not necessarily have a unified perspective in our membership on the definition of what it means to be green, nor what is acceptable regarding sustainable practices.

Our members recognize there have been changes in our regulatory environment at the national, state and federal levels. Much needs to be done in the years ahead to ensure that others don’t define our role for us – that science, not wishful thinking or fear, will guide us to a place where we continue to serve the environment, our clients, our employees and our businesses’ bottom lines. A debate is underway at the national and international level on climate change laws and regulations. The tree care industry needs to ensure that, with proper thought and consideration, we can be part of the solution.

Mark Garvin
Publisher
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Features

8 Ground Worker Accidents
By John Ball, Ph.D., CTSP

The What and Why of Insect and Mite Outbreaks in Cities and Suburbs
By Michael Raupp, Paula Shrewsbury, Daniel Hein

24 Chain Saws: Is There a Better Two Cycle Fuel?
By Tim Ard

32 Forming ‘New Attachments’ for Skid Steer and Log Loaders
By Rick Howland

44 Public Review Open for Two ANSI Standards

Departments

Outlook
By Mark Garvin
Reclaiming the “green industry” tag from the solar panel and replacement window installers.

Cutting Edge
New products and services, and news in the tree care industry.

Industry Almanac
Important regional and national meetings and activities.

Washington in Review
By Peter Gerstenberger
DOT cracks down on truck drivers’ texting.

TCIA Accreditation
By Janet Aird
Barrett Tree Service East finds training and Accreditation help launch business.

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By Richard Hefley
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Three tree workers are walking out of the shop on a mild late winter morning to meet up with their respective crews. Dave, the first worker, is a climber and expects to spend much of the morning in the canopies of some big katsura trees at a client’s house. The bid is for mostly cleaning, fairly routine except the trees are in a “target rich” environment, lots of structures and nice gardens to keep a watch on when cutting and lowering branches. Pat, the second worker, is planning to spend the same morning working from an aerial lift. The company has a contract with the city to do some trimming of the boulevard trees. There are no wires in the street trees, but working near traffic is always a hassle and Pat cannot wait until the morning rush hour ends so the streets quiet down and the work can settle into a routine. Jim, the third worker, is figuring he’ll spend the morning dragging brush and feeding the chipper on a removal job. He also knows that he’ll be handling some of the lines for lowering limbs. Jim would rather be running a saw, but today it just looks like a lot of pulling, dragging and raking.

Which of these three workers is probably most at risk for a serious injury; the climber, lift operator or the ground worker? It’s Jim, the ground worker. Electrocution is the single largest source of fatalities in the tree care industry, accounting for anywhere from 15 to 20 percent of tree worker deaths on an annual basis. The majority of these do occur to climbers or aerial lift operators, but the largest fatal event or exposure category is usually “contact with an object or equipment” and accidents in this category, as well as transportation incidents, occur mostly to workers on the ground, not in the air. While the aerial environment does have its unique risks, it’s the ground worker who suffers most of the serious injuries in the tree care profession.

Struck-by is a common phase in a report of a ground worker accident that is classified as a “contact with an object.” The two objects most frequently contacted are a falling tree or a falling limb. Struck-by-a-limb is a source of many non-fatal and fatal tree worker accidents. Struck-by-a-tree accidents tend to lean more toward fatalities rather than non-fatal injuries; our bodies are not designed to withstand an impact of 12 tons raining down on them. Interestingly, the worker struck by the falling tree usually is not the worker running the chain saw; rather, it is either a worker handling a pull line or a worker who just happens to be in the clear zone.

There are numerous accidents that involve workers handling pull lines. A “freak accident” is how these events are sometimes described, though you have to wonder what is freakish about the outcome of trying to pull down a 60-foot tree with 40 feet of rope. Too short of a pull line is a commonly cited factor in these types of accidents, with the admonishment of the victim for running in the wrong direction when the tree began to fall. Accident accounts will sometimes state that one worker ran to the side and escaped but the victim ran straight back away from the falling tree and was struck. The top of a 50-foot tree hits the ground moving at about 40 miles per hour, you’re not likely to outrun it if you hesitated at all when it started its arc to the ground; and when it does hit, there may be more than 10 tons behind the wallop and you’re not likely to survive the force of impact. But why you were running in the wrong direction isn’t as much the question to ask as why did you have to run in the first place?

Tree workers are often quick to point...
that they are tree workers, not loggers, and the logging standard of a two-tree length clear zone for felling is impractical in an urban setting. And using a rope shorter than the height of the tree is practical? Trying to outrun falling trees makes the Pamploña annual running of the bulls seem tame in comparison. I’m not going to promote a set distance to all clear zones, since it is dependent upon the particular circumstances. But I will say that if the one you established is dependent on your ground workers’ running speed – it’s too small.

Our standards say workers on a pull line shall be clear at least one tree length; if you do not have a line long enough to meet that standard, buy a new one.

The other common struck-by involving whole trees is a worker merely walking through or standing in the zone. A clear zone is neither a corridor for walking nor a resting site; it’s where a falling object hazard exists. Many struck-by accidents occur because the worker is moving between point A and B and that line intersects the falling tree. One recent fatality occurred to a worker just dragging some brush over to the chipper, but he cut through the clear zone just as the tree began to fall and failed to hear the warning over the sound of the chipper. Too many companies are a bit lax about establishing a clear or work zone; it is either not clearly established before the work begins or not clearly observed once operations are underway. And keep in mind, the tree being felled is not the only hazard. Workers have been killed as a tree inadvertently falls into another, causing the second tree to break and hit a worker not expecting a tree falling from that direction (domino felling, where a worker intentionally falls trees into one another to bring them all down also brings down workers). Perhaps more common is the falling tree striking another and instead of the trunk breaking, a limb or two snap and spiral away on their own trajectories.

Struck by a falling limb or branch is an all too common accident description. In addition to the scenarios already mentioned, these can also involve a failure in the rigging system, or a branch cut and dropped without warning. I can remember back in the mid ’70s taking a wrap of the tree with the manila bull rope and standing way out away from the tree when lowering branches. These days I see workers standing next to a lowering device attached or affixed to the tree and looking almost straight up at the load. Not a good place to be if the rigging line’s anchor point breaks and the load makes a sudden drop to the ground. Attaching the lowering device to the trunk of the tree makes sense; I am certainly not advocating side loading by using a nearby tree, as this brings up a number of other potential failures, but I am advocating using a longer line and keeping the worker as far out from the tree’s trunk as possible.

Workers will sometimes believe that if the branch drop zone is set to correspond to the canopy edge, the “drip line,” that limb struck-by’s can be eliminated. Not necessarily true. The industry has experienced accidents where cut branches or tops have bounced off tree limbs or equipment on their uncontrolled descent like a pinball going through the bumpers and striking workers, or others, outside of this area. When you set a drop zone, consider all the possibilities and be conservative. We don’t have accidents from setting too large of a drop zone, just ones too small.

Command and reply along with establishing a work or drop zone are probably two of the most important measures we can take to reduce accidents among ground workers. The command “Stand clear” followed by the response “All clear” (when ready) is one of the best ways we have of reducing injuries to ground workers. Sometimes hand signals are used, but whatever it is, the communication format should be discussed and agreed to during the all-important (but frequently ignored or short-changed) job briefing.

The event or exposure category “struck by an object or equipment” also includes being struck by a chain saw or caught in a chipper. Many of our chain saw fatalities occur among climbers, but ground workers are also occasionally killed and frequently injured. Chain saws do not kill us as often as they injure us, perhaps due in part to the more common use of PPE these days, more safety features on the saws and more training. Still, chain saw accidents do persist and workers would be wise not to make running a saw too much of a routine matter and not to take short-cuts in PPE or technique just to hurry a job through.

Chippers are the last of the “big four” factors in the struck-by-an-object category. As I reported last year in another TCI article (March 2009), chipper fatalities are far more common than previously thought. Since the victim is often working alone (the climber is in the tree) and modern chippers are fairly efficient at shredding large objects, we sometimes have no idea how the accident happened, as the only evidence is some human remains in the chip box. The most common scenario of the ones observed is the worker is pulled in...
feet first as he or she used their foot as a push stick. The other is hands-first as a hand is caught in the brush and pulled in. One of the most recent accidents – and, unfortunately, they occur with almost predictable frequency – was a worker who was pulled in when a shovel being used to push debris was caught and the victim was not able to release in time.

While the aforementioned are the largest sources of accidents among ground workers, they are not the only ones. Transportation accidents abound in our profession as we spend a considerable amount of time behind the wheel every day. Driver safety training is probably one of the most neglected areas of training in the tree care industry and every company should be certain to include defensive-driver training in its safety program. And, make sure that everyone wears a seat belt – they are as important as the rest of our PPE.

The other transportation incidents involve being struck by passing traffic. It is no surprise to any veteran worker just how close cars and truck come to cones – I swear drivers aim at cones rather than avoid them. Most ground workers have at least once experienced the feeling of having the wind turbulence from a truck mirror brushing by at 70 mph. Staying alert is probably the best defense.

Finally, ground workers have suffered electrical shock, not nearly as often as aerial workers, but still, accidents do happen. Energized guy wires have been a source of electrical shock along with distribution lines and house drops being pulled off the poles by falling branches or trees and draping over the worker. Another source of contact is touching an aerial lift that became energized.

And while they make up only a small percentage of our accidents, ground workers are assaulted each year by angry neighbors or robbers. People upset about work going on at their neighbors, usually because they don’t like their neighbor, may decide to take out their frustrations on the tree crew. Tree workers have been shot for dragging brush across the property line or other minor trespasses. It is always a good idea to have permission to enter an adjoining property for any reason, even retrieving dropped or blown items. And if someone is threatening (I’d consider waving a shotgun a threat – this was the most recent assault), then it is a good time to keep your cool and call on the police.

Assaults, electrical shock, struck by traffic, are all part of the risk of being a ground worker, but the biggest risks is the fact you are the ground worker not the aerial worker and everything rains down on you. So the next time you are Jim, just working on the ground for the day, don’t think you can let down your guard. You have a target on your back – actually your head! Stay safe!

John Ball, Ph.D., CTSP, is a professor of forestry at South Dakota State University where he instructs courses in arboriculture and urban forestry. He previously managed tree care companies in the Midwest and East. This article was based on his presentation on the same topic at TCI EXPO 2009 in Baltimore.

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To understand the “what and why” of insect and mite outbreaks in cities and suburbs, it is instructive to understand how cities and suburbs develop and what changes in plant and animal life occur as natural ecosystems become ecosystems altered by humans.

First, consider a natural ecosystem such as a forest in Massachusetts or Michigan. Through time, man removes trees and vegetation to create open land for agriculture and building sites for homes and commercial enterprises. Long periods of ecological succession that created a forest are reversed and land is maintained at an early stage of succession by man’s intervention. The end product of this change results in a gradient of urbanization. At one extreme of this gradient are natural areas like forests or deserts, where communities of plants and animals have interacted over relatively long periods of time with minimal influence from man and his activities. At the other extreme are urban environments such as cities and suburbs, where man’s influence dominates ecosystems and the animals and plants that live within the confines of the city.

What changes along urbanization gradients and how do these changes affect populations of pests? One of the most striking changes as natural areas become cities is the loss of biological diversity. This loss is striking at several levels of ecological organization. In forested biomes, trees are one of the first and most significant casualties of urbanization. The density of woody plants declines several orders of magnitude along the gradient from a forest to a city.

Accompanying reductions in density are changes in the mixture of plant species in cities and suburbs as communities of native plants are replaced by exotic plants introduced accidentally or purposefully. The presence of exotic plants in urban areas may disrupt ecological processes in several important ways. If exotic plants are invasive, they may displace native vegetation, eliminating the insects that depend on native plants as sources of food. In turn, animals higher in the food chain, such as insectivorous birds, may be less abundant in managed landscapes where exotic plants abound than in forests dominated by natives. In addition, exotic plants may lack an evolutionary history with native insects that eat them in their new home. This lack of evolutionary history may result in a lack of potent plant defenses and enable insect attackers in the new land to outbreak on the exotic plant.

The sustainability of our urban forests is further imperiled by the relative lack of diversity in our communities of street trees. A tale of destruction has played out more than once where a limited palette of street trees has been devastated by the arrival of a new exotic pest, such as emerald ash borer, smaller European elm bark beetle or Asian longhorned beetle, for which our native trees lacked adequate defenses.

Another common change along the urbanization gradient is an increase in man-made structures, such as buildings and roadways, that greatly increase the amount of land covered by impervious surfaces. Impervious surfaces dramatically limit water infiltration into soil. Water is one of the key raw materials of photosynthesis and without water plants cannot grow and survive. Evaporation associated with transpiration helps to cool the surface temperature of leaves. Moreover, by intercepting the sun’s rays and creating shade, trees cool cities and suburbs. The lack of vegetation and preponderance of buildings and hardscape in cities causes them to be significantly warmer than surrounding natural areas. These “heat islands” favor certain pests by accelerating their develop-
ment and increasing the number of generations attained in a growing season. Water deficits in soils created by impervious surfaces negatively affect water availability and create drought stress for trees in cities. Some of the most egregious and deadly pests of woody plants, such as wood-boring beetles and caterpillars, benefit when trees experience drought stress due to disabling effects of water deficits on defensive pathways of trees. Impervious surfaces may also impede the movement of natural enemies that help reduce pest populations. This loss of “top-down” regulation by natural enemies may contribute to pest outbreaks in cities and suburbs.

Deficits of critical resources such as water sometimes contrast with excesses of other man-made inputs, such as minerals and nutrients. Salts used for de-icing streets and sidewalks are commonly used in temperate cities with snow and ice. Trees and shrubs in cities often receive nutrients at levels much greater than those in natural systems. The strong causal link between high levels of nutrients, particularly nitrogen, and elevated performance and populations of pests is well known for many sucking insects such as scales and aphids, mites, and leaf chewers such as caterpillars and weevils.

Do all kinds of insects and mites increase along gradients of increasing urbanization? After reviewing studies involving more than 50 species of insects and mites along urbanization gradients, we found several patterns. Several groups of insects and mites regularly reached levels considered to be “outbreaks” in urbanized areas as opposed to more natural areas. These included armored and soft scales, lace bugs, aphids, gall midges, gall wasps and dipterous leafminers (larvae of flies such as the native holly leafminer). In cities several species of spider mites regularly outbreak, such as those on *Tilia*, *Quercus* and *Gleditsia*. While these culprits represented a broad taxonomic collection of arthropods, they shared many attributes. All were relatively small arthropods most of which had sucking mouthparts. Their mobility was generally limited, and most spend multiple generations on the same host plant where all of their requisite resources were found. Some, such as gall midges, gall wasps, and leafminers, have intimate associations with their host plant, which they modify to create specialized food resources and shelter.

Which types of insects don’t generally outbreak or become abundant in cities? Many larger herbivorous insects, such as moths and butterflies, do not increase in diversity or abundance in a simple way along the urbanization gradient. Urbanization often removes plant species that serve as food resources for caterpillars or nectar and pollen sources for adult stages of many moths and butterflies, which decline in abundance with increasing levels of urbanization. Exotic species of plants that become more common with urbanization are sometimes not used by native moths and butterflies as food sources. In an interesting twist to the urbanization puzzle, several studies revealed that butterfly and moth diversity may reach a peak not in cities or forests, but in suburbs where residential landscapes, gardens and parks provide a rich blend of herbaceous and woody plants at a variety of stages of succession including grasses, forbs, vines, shrubs and trees. One strong theme found in our review of the literature was that habitat loss and degradation characteristic of urban development were especially disruptive to many native butterflies are often casualties of urbanization and rarely found in cities.

Spider mites are regularly found at elevated densities, causing damage to trees and shrubs, in cities and suburbs.

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butterflies, and their diversity and abundance suffered greatly in man-altered ecosystems.

Thus far we have discussed general patterns in responses of plant-eating insects and mites to the urbanization gradient, but what forces underlie these patterns? As was mentioned previously, man-made inputs can disrupt ecological processes to the detriment of trees we try to protect from insect and mite attackers. Fertilization improves plant quality and has the potential to increase herbivore populations, especially for mites, scales and adelgids that complete multiple generations on the same plant. Urban stressors, such as pollutants, and moisture limitation may trigger insect outbreaks by enhancing quality of the plant as food or by debilitating the plant’s natural defenses. For example, prolonged water stress generally favors attack by wood-boring beetles and clearwing moths. Intermediate water stress, alternating periods of drought and wetness, favors sucking insects such as scales and aphids.

Pesticides used to control nuisance pests, such as biting flies in recreational areas, have resulted in outbreaks of scale insects on street trees. Similar widespread outbreaks of sucking insects and mites have been observed where area-wide attempts have been made to eradicate exotic pests. Cover sprays with residual insecticides have also been linked to outbreaks of scales in residential landscapes. The primary mechanism underlying these outbreaks of secondary pests appears to be disruption of the suppressive effects of predators and parasitoids on pest populations. Loss of top-down regulation has been cited as a primary cause of outbreaks of scales and mites following the application of pesticides. Recently, it has been shown that some pesticides may improve the quality or reduce the defenses of host plants. This may contribute to outbreaks of spider mites following the application of pesticides.

Our review of insect outbreaks along urban gradients provides some clues for increasing sustainability and restoring function of our urban ecosystems. The first step should be to restore diversity at all levels, but especially to plant communities in cities and suburbs to the greatest extent possible. Native plants may provide unique benefits in restoring and maintaining ecosystem function, especially if they can withstand the rigors of the urban environment. Impervious surfaces are a bane to
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The Right Way To Treat A Tree
plants and their associated fauna excepting lethal pests such as borers. Materials and designs that enable water and air to infiltrate soil in appropriate quantities will help trees thrive in cities. Fertilizers and pesticides should be used judiciously and only when needed to avoid outbreaks, particularly of sucking insects and mites that commonly outbreak in cities and suburbs.


Michael Raupp spoke on this same subject at TCI EXPO 2009 in Baltimore. Raupp is a professor of entomology at the University of Maryland, College Park. He has worked closely with the tree care industry to develop and implement IPM programs for almost three decades.

Paula Shrewsbury is an associate professor of entomology at the University of Maryland, College Park, where she investigates ways to increase sustainability of managed ecosystems by conserving natural enemies and enhancing their beneficial activities.

Dan Herms is a professor of entomology and associate chair at The Ohio State University, OARDC, Wooster, Ohio, where he studies the ecology and management of arthropod pest of trees and shrubs; plant defense theory in plant health care; invasive species; sampling and monitoring.
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Transtect™ is a soil applied, systemic insecticide that provides season long control of a broad spectrum of pests. Its unique properties provide rapid uptake and efficacy. Transtect can be used for a variety of situations where fast results are needed including recovery treatments on infested trees.

Insects Controlled: Adelgids (such as: Hemlock Woolly), Aphids, Emerald Ash Borer, Two-lined chestnut, Bronze birch, Glassy-Winged Sharpshooter, Japanese beetle (adults), Lacebugs, Leaf Beetle (such as Elm, Viburnum), Leaffoppers, Leafminers, Plant bugs, Psyllids (such as Asian citrus), Soft Scale, Armored Scales (such as: Pine Needle, Elongate Hemlock, Euonymus)

Transtect moves into the plant faster than imidacloprid and provides season long control

Protection from Armored & Soft Scale
Magnolia treated with one application of Transtect (left) and untreated control with significant damage from False Oleander Scale.

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Plant Health Care’s new PHC 8-2-2 is a poultry manure-based product that contains more than 70 percent organic ingredients by volume. Enhanced with beneficial bacteria and ammonium sulfate, PHC 8-2-2 comes in two formulations: 240 SGN and special Greens Grade in 60-80 SGN. This product is competitively priced for cost-conscious organic customers. Also new for 2010 is PHC 14-0-2, a bridge fertilizer containing N-P-K fertility derived from natural and conventional sources. This zero-phosphate product provides rich organic material to depleted soils and contains more than 70 percent organic ingredients by volume. PHC 14-0-2 is also enhanced with beneficial bacteria to boost biological soil fertility. Contact Plant Health Care, Inc. via www.planthealthcare.com.

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TreeAzin bioinsecticide

TreeAzin, a systemic bioinsecticide produced by BioForest Technologies, Inc., is now being distributed in the U.S. by J.J. Mauget. TreeAzin is an anti-feedant and growth disruptor labeled for use against defoliating insects, including emerald ash borer. The bioinsecticide is formulated with azadirachtin, a natural extract of the neem tree seed, and is the only tree-injected neem seed product with an Organic Materials Review Institute (OMRI) listing. Mauget announced its partnership with BioForest Technologies, Inc., a Canada-based pest management development and consulting company, last November. Contact J.J. Mauget Co. via 1-800-TREES RX (873-3779) or www.mauget.com.

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Timberwolf TW-C1 log splitter

Timberwolf’s new TW-C1 log splitter provides the freedom and quality of its larger splitters in a smaller package that is easy to move around the yard and is easy to store. Designed for the homeowner market but also useful for the tree company lot, the TW-C1 can create firewood specifically suited to a particular wood stove, furnace or other use. Like all Timberwolf log splitters, the TW-C1 is welded and assembled by hand with USA made components. All machines are factory tested and built to last a lifetime. It comes standard with an ultra reliable and easy-to-start Honda 160cc engine, log cradles, quality pneumatic tires and a convenient handle that makes moving the C-1 a simple task. The TW-C1 comes with a one year factory warranty. Contact Timberwolf via 1-800-340-4386, info@timberwolfcorp.com or www.timberwolfcorp.com.

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All Gear 24-strand Rocket Line

All Gear’s new 24-strand Rocket Line offers triple construction providing a 24-strand outer braid, a 16-strand inner braid and a neon orange cable and twisted core for that extra durability climbers are looking for. It is braided with premium polyester in high visibility neon red and yellow. The highest levels of quality control along with field testing makes this rope a perfect choice for even the most discerning arborist climber. Climbers want a firm round line all the time and this rope delivers, resulting in high performance. The Rocket Line is available in 120-foot and 150-foot hanks and 600-foot and 1,200-foot spools. Contact All Gear via www.allgearinc.com.

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Corona folding Razor Tooth saw

Corona Clipper’s new folding Razor Tooth saw, model RS 7255, is the perfect pruning tool for small to medium branches. Featuring razor teeth that are sharpened on three sides, the RS 7255 can cut twice as fast as a conventional saw. Each razor tooth is impulse-hardened for a longer service life, while the replaceable 8-inch blade’s unique curved taper-ground design increases cutting efficiency for a smoother, cleaner cut. An ergonomically-designed, co-molded folding handle offers steady, comfortable grip. Contact Corona Clipper via 1-800-847-7863 or www.coronaclipper.com.

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Cutting Edge - Products

Plant Health Care organic fertilizers
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The Sidekick rope retriever

Created by an arborist for arborists, the Sidekick rope retrieving tool aids in placing and retrieving climbing/lowering lines from critical positions within tree canopy. It greatly increases efficiency and safety in high hazard tree operations. The Sidekick attaches to climbing saddle D-rings with snap-hook for instant access. Only 27 inches long, its four locking segments expand to 9 feet, yet it weighs less than a pound. A strong, fixed hook on the end will not straighten out under pressure nor rotate when extended. The Sidekick is offered by Bailey’s, WesSpur, American Arborist and other professional equipment suppliers, or contact the manufacturer at teppersons@yahoo.com.

Nikon Forestry 550 Rangefinder/Hypsometer

Affordable and rugged, the Nikon Forestry 550 Laser Rangefinder/Hypsometer available from Forestry Suppliers provides accurate range, height and angle measurements. First Target Priority Mode allows you to range small objects and obtain an instant reading. Distant Target Priority Mode displays the range to the farthest target among the targets measured. This precision rangefinder/hypsometer is waterproof, features 6x magnification, and provides several measurement readout options, including actual distance, angle compensated distance (horizontal distance), angle (degrees), and height. Results are displayed in yards, meters or feet. An internal display and an external LCD display make reading the measurement data easy. Contact Forestry Suppliers Inc. via 1-800-360-7788 or www.forestry-suppliers.com.

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Wright Tree and S&S Tree launch joint venture

Wright Service Corp. and S&S Tree and Horticultural Specialists have formed a joint venture, S&W Tree Specialists, which commenced operations February 1, 2010 in the Tulsa, Oklahoma, metro area.

S&W Tree Specialists has taken the place of Wright Tree Care, Inc., a Wright Service Corp. company in operation since 1993. The company will offer an array of residential and commercial tree services. S&W Tree Specialists has also taken over as the only TCIA-accredited company in eastern Oklahoma.

“The Wright Service Corp. family of companies strives to provide the highest quality, safest and most innovative services to our customers,” said Scott Packard, CEO of Wright Service Corp. “The joint venture represents our effort to further these values within our residential and commercial tree care service lines.”

“We look forward to providing the residents of Tulsa the same exceptional customer service that has helped us become the largest family-owned tree company in Minnesota,” said Steve Sylvester, president and CEO of S&S Tree and Horticultural Specialists.

Sherrill is sole distributor for Silky in U.S., Central America

Silky of Japan has recently selected Sherrill, Inc. (dba SherrillTree) as sole importer and distributor for the U.S. and Central American markets for its saws.

“SherrillTree is honored to represent Silky in the U.S. and Central America as well as to further serve Silky dealers and users of these quality tools for tree and shrub care,” said Tobe Sherrill, CEO of Sherrill, Inc. “Sherrill’s philosophy on service and quality are well aligned with Silky and therefore this should prove to be a great partnership.”

“We have watched Sherrill for many years and see from their actions that they think, as we do, that true customer loyalty comes from serving quality products at competitive prices. In this challenging economic environment, good companies cannot afford to compromise these values,” said Shozo Miyawaki, managing director of Silky.

Morbark teams with Strongco

Morbark has signed a dealership agreement with Strongco Limited Partnership in Western Canada, which has five locations in Alberta. Strongco is a multi-line industrial equipment distribution provider serving Calgary, Red Deer, Edmonton, Fort McMurray and Grande Prairie.

“The partnership with Strongco closes a gap we had in terms of distribution and we’re excited about the benefits this joint venture will bring to Morbark customers,” states Barry DeLau, Morbark international sales manager.

Bartlett Tree Experts names two new Board Members

Bartlett Tree Experts has elected Reyno Giallongo and Robert Stelben to their Board of Directors. Giallongo is an executive vice president at First County Bank of Stamford, Connecticut. With more than 30 years in the banking industry, he has considerable experience in business development and risk management. Stelben has held roles as a vice president and treasurer at major corporations, most recently was vice president of finance for energy services company Con Edison.

“We’re excited to have Reyno and Robert bring fresh ideas to our company,” said Robert Bartlett Jr., Bartlett chairman and CEO. “Their financial expertise and understanding of successful operating procedures made them ideal choices for the two openings.”

Arborwell, Bozeman Tree, Tree Mann join HMI network

TCIA members Arborwell, Bozeman Tree Service, Inc. and The Tree Mann, Inc. have join Horticultural Asset Management’s Authorized Member Network. Arborwell will support HMI’s programs in the important California market, Bozeman Tree will do so in Southwest Montana, and The Tree Mann in Northern Indiana and Southwest Michigan.

HMI provides property owners, insurers and others with inspections, replacement costs and a full suite of claims support services for trees and shrubs.

“Arborwell is growing rapidly and we are pleased to partner with HMI as we feel they can help us continue expanding our customer base” said Peter Sortwell, Arborwell president and CEO. “We are always looking to support any initiative that establishes a quality standard for tree work.”

“Bozeman Tree will allow us to better serve our insurance company clients in a market that is quickly developing,” said Malawsky. “As the first company to receive TCIA Accreditation in Montana, Bozeman Tree Service represents the gold standard of professionalism and safety that HMI is trying to promote to the insurance industry.”

“By joining HMI’s network, we hope to grow our business and contribute to a nationwide effort to standardize high quality tree work,” said Jeff Pfeil, founder and owner of Bozeman Tree Service. “We have invested a lot time and effort in distinguishing ourselves as a professional company and are happy that HMI sees us as a valuable resource to serve its clients in Montana.”

“Three generations of the Mann family have built The Tree Mann into a leading tree care company,” said Malawsky. “The Tree Mann will be a great asset to HMI in its quest to create a national standard for tree care in the insurance and restoration industries by aggregating the services of the best tree care companies in the nation.”

“Today, one of the biggest challenges our industry faces is the influx of low quality service providers,” said Dennis Mann, president of The Tree Mann. “It is our hope that by joining HMI’s network, we will be able to assist HMI in highlighting the importance of only working with qualified tree care companies.”

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Nassau Suffolk Landscape Gardeners Association
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Contact: Patricia Voges (631) 665-2250; nslga2@optonline.net

March 2-3, 2010
MGIA Annual Trade Show & Convention*
see ad on page 25
Rock Financial Showplace
Novi, MI
Contact: (248) 348-5600; www.landscape.org

March 24-25, 2010
ArborMaster Level 1 Tree Climbing Methods
Biltmore Estate
Asheville, NC
Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

March 26-27, 2010
ArborMaster Level 1 Precision Felling, Chain Saw Handling, Safety & Ergonomics
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www.ArborMaster.com

March 29-30, 2010
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April 23-25, 2010
4th Annual Wildland Fire Litigation Conference
Silver Legacy Resort and Casino
Reno, NV
Contact: www.wildlandfire litigation.com

April 28-May 1, 2010*
ISA Western Conf. & Trade Show
Doubletree Hotel Reid Park
Tucson, AZ
Contact: (559) 784-8733 www.wcisa.net

May 4-5, 2010
ArborMaster Level 1 Tree Climbing Methods & Best Practice
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www.ArborMaster.com

May 6-7, 2010
ArborMaster Level 1 Precision Felling, Chain Saw Handling, Safety & Ergonomics
Taylor, MI
Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

June 22-23, 2010
ArborMaster Level 1 Precision Felling, Chain Saw Handling, Safety & Ergonomics
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Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

June 28-29, 2010
ArborMaster Level 1 Tree Climbing Methods & Best Practice
Indianapolis, IN
Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

June 30-July 1, 2010
ArborMaster Level 1 Precision Felling, Chain Saw Handling, Safety & Ergonomics
Indianapolis, IN
Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

July 7-8, 2010
ArborMaster Level 1 Arborist Rigging Applications
Haddam, CT
Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

July 9-10, 2010
ArborMaster Level 2 Tree Climbing Methods and Best Practice
Haddam, CT
Contact: Info@ArborMaster.com; 860.429.5028 x 701
www.ArborMaster.com

July 23-28, 2010
ISA Annual Conference & Trade Show
Chicago, IL
Contact: www.isa-arbor.com

November 11-13, 2010*
TCI EXPO 2010 Conference & Trade Show
Pittsburgh, PA
Contact: 1-800-733-2622; cyr@tcia.org; www.tcia.org

2011
January 9-10, 2011
National Green Centre
Formerly WESTERN Annual Meeting and Trade Show
St. Louis, MO
Contact: www.wnla.org; 1-888-233-1876

* Indicates that TCIA staff will be in attendance
On January 26, U.S. Transportation Secretary Ray LaHood announced federal guidance to expressly prohibit texting by drivers of commercial motor vehicles (CMVs). The prohibition went into effect immediately, the latest in a series of actions taken by the Department to combat distracted driving since the Secretary convened a national summit on the issue last September.

Truck and bus drivers who text while driving commercial vehicles may be subject to civil or criminal penalties of up to $2,750.

Federal Motor Carrier Safety Administration (FMCSA) research shows that drivers who send and receive text messages take their eyes off the road for an average of 4.6 seconds out of every 6 seconds while texting. At 55 miles per hour, this means that the driver is traveling the length of a football field without looking at the road. FMCSA studies show that drivers who text while driving are over 20 times more likely to get in an accident than non-distracted drivers.

This action is not a new rulemaking but instead the result of the Department’s interpretation of existing rules. Because of the safety risks associated with the use of electronic devices while driving, FMCSA is also working on additional regulatory measures that will be announced in the coming months.

During the September 2009 Distracted Driving Summit, the Secretary announced the Department’s plan to pursue this regulatory action, as well as rulemakings to reduce the risks posed by distracted driving. President Obama also signed an Executive Order directing federal employees not to engage in text messaging while driving government-owned vehicles or with government-owned equipment. Federal employees were required to comply with the ban starting on December 30, 2009.

Further detail on this new regulatory guidance appeared in the Federal Register on January 27. As a stop-gap measure, Secretary LaHood exercised authority to interpret that texting while driving a CMV is a violation of 49 CFR 390.17: “Nothing in this subchapter shall be construed to prohibit the use of additional equipment and accessories, not inconsistent with or prohibited by this subchapter, provided such equipment and accessories do not decrease the safety of operation of the commercial motor vehicles on which they are used.” As used in Sec. 390.17, “this subchapter” means Subchapter B (49 CFR parts 350-399).

Because of the safety risks associated with texting, FMCSA will address the issue in an expedited, stand-alone rulemaking to be completed in 2010.

The feedback the Department received during its Distracted Driving Summit, from four United States senators, several state legislators, safety advocacy groups, senior law enforcement officials, the telecommunications industry and the transportation industry suggest there is widespread support for a ban against texting while driving.

The public can follow the progress of the U.S. Department of Transportation in working to combat distracted driving www.distraction.gov.

Peter Gerstenberger is senior advisor for safety, compliance & standards for the Tree Care Industry Association.

Washington in Review

By Peter Gerstenberger

**DOT cracks down on truck drivers’ texting**

Circle 31 on RS Card or visit www.tcia.org
By Tim Ard

I have been involved with two-cycle tools since 1974 – repairing, running, testing and teaching people about and how to use them. Fuel issues have been a major concern of two-cycle equipment manufacturers as long as I can remember. Old gasoline, improper mixing and carburetor adjusting have cost manufacturers, equipment owners and operators a lot of money.

On a trip to Sweden and Finland back about 20 years ago, I was impressed by an idea that was readily available at power equipment dealers. The concept was a pure gasoline pre-mixed with two-cycle oil and packaged by the liter. The fuel was focused at the emissions value to the operator and the reduced damage to the engine and rubber parts.

The inhalation of two-cycle fumes and their long term effects on the operator and environment are a concern in many countries. This has become a concern in the U.S. over the past decade. The issues, I am told, stem from the additives in gasoline, the age of the gasoline, along with the mix oil and the engine efficiency.

As gasoline ages it loses its octane rating and becomes less volatile. When this happens, it burns erratically and engine damage from carbons and detonation occur. The oxygenators and cleaning agents used in automotive fuels can react negatively to the efficiency of two-cycle mixed fuel. Remember, the auto fuel industry doesn’t spend a lot of time making gasoline work for the two-cycle equipment user. Pure gasoline, much like that used in the aviation industry, is more suited for the two-stroke fuel mix process.

Think about the detergents discussed in the auto gasoline advertising. They promote detergents to clean the inside of the car engine, reducing sludge and valve deposits that can be detrimental to your car’s engine. It’s good to be scrubbing the inside of your car engine, so to speak, with these agents. However, detergents are designed to separate oil and grease from the surfaces of your engine block and valves. Detergent basically lifts and separates the oil film from the metal and carries it off with the flowing oil and exhaust. Now consider detergents; if they are doing their job, what is the effect on oil that is mixed with the gas to form your mixed two-cycle fuel? The minute you pour in the oil and shake it up in your gasoline container, an amazing scrubbing bubbles operation begins to take place. The detergents in the gasoline are now fighting with the oil you added to separate them. They are just doing their job. The problem is you need the oil to stay connected with the gas to do its job with the two-cycle engine you have spent your savings on.

Alcohol-containing fuels add another facet to the situation. Let’s say you have your two-cycle machine adjusted, that the fuel you had in the tank had little or no ethanol or methanol (alcohol) in it, and it is running well. Now, you run out of fuel and go buy fresh gas and mix up a fresh supply in your can. It contains alcohol now because the new gasoline found at most pumps has 10 percent, or greater in some cases (I’ve heard rumor it may be even going higher, say 15 percent). Your engine rpm now runs higher and it idles different-
ly, but you can get by. What’s really taking place? If you don’t re-adjust your carburetor, you may be creating a lasting problem inside your now rapidly wearing engine.

You see, what I have been told is that alcohol molecules take a larger hole to go through than gasoline molecules. I don’t drink alcohol, but those who do say that it is the reason they drink from a glass, because it’s hard to drink fast and get enough from a small bottle opening. Just kidding! But it does make sense doesn’t it – given the richer adjustment needed for alcohol content fuel flow.

Now back to the carburetor of your two-stroke. Your carburetor mixture screw setting is open let’s say two turns. There is a given amount of fuel that is passing by the adjusting screw. You add alcohol fuel to the situation and want it to pass by that same opening that was set for the pure gasoline. It can’t pass through at the same volume. The engine gets less fuel at the given setting. The important thing to remember is, a two-cycle gets its lubrication from where? The oil mixed with the gasoline. If you limit the fuel flow, you limit the lubrication needed inside your engine. If you adjust the screw open more, your saw will remain lubricated; but if you don’t – eventual down time. Potentially, the more alcohol percentage in the gasoline, the greater the problem. You can

An operator needs to know when a piece of equipment is out of adjustment. This is important to the life of the engine and operator safety. Here, Jeff Hunt of Richard Hunt Landscaping & Tree Service in Milton, Mass., takes part in the Massachusetts Arborists Association 2009 day of service at Minute Man National Historic Park in Concord, Mass.

Pre-mix Fuel Comparison to Pump Gas Mix

By Tim Ard

A statement triggered a question regarding the oil specs/configuration of 50Fuel. The statement was that certain saws run higher temperatures than others and the oil in it would not handle the temperature demands of their saw. The 50Fuel has a rating of JASO FD which is about the best rating you can have for two-cycle air cooled oils. Both the major brand Husqvarna Oil and the 50Fuel has the JASO FD rating.

I found both the oils are capable of doing their job in any two-cycle, air-cooled engine. That’s my feelings from past experience with small engines and many hours of operation. I have never experienced a lubrication breakdown failure when oil is mixed properly.

I have made the statement several times over the years that I see very little problem with mixing oils or amounts, what I feel to be the problem in most failure scenarios is pertaining to the fuel:

▸ Fuel with no oil added.
▸ Fuel that is high in vapor pressure and or low in octane.
▸ Fuel that contains alcohol (ethanol) in a high percentage.
▸ Fuel that is virtually old, “dead.”

If not finding those things to be a problem, then it is usually a lack of tuning knowledge that causes failures, i.e. running too long with improper settings (too lean or too rich), dirty, dirty filter, etc. I have not found many manufacturing defects in my travels and experiences. Usually it was related to the fuel or the screwdriver.

The findings in the following trial data show that 50Fuel is as good, if not slightly better, in keeping muffler and exhaust temperatures within a consistent range of the gas mixed. The 50Fuel had a much more stable idle rpm and throttle response, and top rpm was controlled much better. I feel this has a lot to do with a better control of vapor pressure of the fuel. The 50Fuel maintains about 7.3 psi at 100 degrees. I think you will find pump gas pressures to be much higher (15 psi+ at some pumps). The inlet needle and metering in the carburetor have a much easier time adjusting to the lower 50Fuel vapor pressure. Remember, an inlet needle in a chain saw carburetor reacts to a spring pressure operated by atmospheric pressure, in most cases a little less than 15 psi. When gas pressures are close to 15 psi, the metering is not working properly. Different demands of the engine are not met, the engine leans out and fuel leaks can occur.

Given the findings, the real benefits of the 50Fuel are controlled rpm and a more stable run than the 10 percent ethanol midgrade fuel mix. This should lead to a

(Continued on page 26)
adjust to the situation, but someone has to recognize the situation and do it. The adjustment of the carburetor needle was to its richest setting. There was noticeably more throttle left using regular fuel, which indicated the over speeding was higher with the Mixed Gas.

Note 2: The top rpm was higher with the Gas Mix. The rpm would have gone higher when held longer.

Note 3: The Gas Mix run was held at 13,500 for the exhaust gas check. It would have gone higher. The 50Fuel run stabilized at 13,300 rpm and held there.

## Pre-Mixed Fuel vs. Mixed Pump Gas Test

(Continued from page 25)

much longer engine life, a huge benefit to the operator. The vapor pressure and/or the ethanol making the idle high and the high rpm unstable is the issue that will pound the inside of the engine from overrunning the design limits. The 50Fuel should help to maintain the specifications built into the equipment by the manufacturer simply by stabilizing the fuel source. This really doesn’t happen with pump gasoline today across the country. Stabilizers, boosters, etc. can only enhance or stabilize a good base fuel. That’s the variable that 50Fuel overcomes.

### Fule Comparison

<table>
<thead>
<tr>
<th>Saw</th>
<th>Fuel</th>
<th>Idle RPM</th>
<th>High RPM</th>
<th>Muffler Skin Temp 1</th>
<th>Muffler Skin Temp 2</th>
<th>Muffler Skin Temp 3</th>
<th>Muffler Skin Temp 4</th>
<th>Average Degrees</th>
<th>Exhaust Gas Temp</th>
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<tr>
<td>Husqvarna 575</td>
<td>50 Fuel</td>
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<td>Governor (1)</td>
<td>376</td>
<td>306</td>
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<td>350</td>
<td>343.5</td>
<td>513</td>
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<tr>
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<td>3120</td>
<td>Governor (1)</td>
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<td>399</td>
<td>403</td>
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<td>13200-13300</td>
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<td>219</td>
<td>232</td>
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<td></td>
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<td>3280</td>
<td>13450-13610 (2)</td>
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<td>287</td>
<td>247</td>
<td>258</td>
<td></td>
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<td>13500 (3)</td>
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<td></td>
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<tr>
<td>Husqvarna 460</td>
<td>50 Fuel</td>
<td>2740</td>
<td>13300 (3)</td>
<td>532</td>
<td></td>
<td></td>
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<td>532</td>
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</tr>
</tbody>
</table>

Note 1: The 575 has a governor system. The saw was held wide open after warm up. The rpm was over the governor actuation and the tach would lose its reading on all trials. The adjustment of the carburetor needle was to its richest setting. There was noticeably more throttle left using regular fuel, which indicated the over speeding was higher with the Mixed Gas.

Note 2: The top rpm was higher with the Gas Mix. The rpm would have gone higher when held longer.

Note 3: The Gas Mix run was held at 13,500 for the exhaust gas check. It would have gone higher. The 50Fuel run stabilized at 13,300 rpm and held there.

### 50Fuel run test

Objective: To check operating temperatures and rpm characteristics of common mixed gasoline and mix oil (Husqvarna) vs. 50Fuel pre-mix fuel.

Gas mix was made with Husqvarna 50-1 smokeless oil and mid-grade 89 octane gasoline with pump listing of 10 percent ethanol.

Test Day was high humidity and 47 to 50 degrees F. Hiram, Georgia, approximately 800 feet above sea level.

The muffler skin temps were checked with a Craftsman 1,000 degree hand-held infrared-style automotive pyrometer.

The temp was checked on the front skin of the muffler after full throttle for 10 seconds, the chain stopped, reading taken.

The exhaust gas temp was taken at the muffler exit after full throttle and held for highest reading, approximately 45 seconds.

### Two saws used

Husqvarna 575xp with 20-inch bar and chain: free spin, no load.

Husqvarna 460 with 20-inch bar and chain: free spin, no load

Both saws were warmed. First runs were with 50Fuel. Changed to mixed gas, then back to 50Fuel.

Author note: This trial was not one of scientific exacts. Please find though that there are variables that can exist in any comparison. If you disagree with my findings, I would be more than happy to entertain learning from yours.
many two-cycles damaged by lack of adjustment as I do adjustment. Actually more! If you fail to correctly adjust an engine that is not running properly, you stand a chance of engine damage. An operator needs to know when a piece of equipment is out of adjustment. This is important to the life of the engine and operator safety.

Some people add a little extra oil to compensate for adjustment – adds a little extra lubrication – so they think. Oil holds heat and, if not burned cleanly, increases harmful emissions and carbon buildup. This unburned buildup and carbon inside the engine causes bearings to skate, piston rings to stick and scoring of pistons and cylinders.

Back now to my experience from the Scandinavian trip. Recently I have been trying pre-mixed fuel from TruSouth Oil. I think it offers a long-time needed solution to several two-stroke problems and efficiencies.

A typical example scenario. While out in California on a recent training expedition I had a Husqvarna chain saw. I was using the saw fuel from the county park service supply. I asked how old the fuel was in their supply. They didn’t know the mix date. I asked if they had any fuel problems show up, they replied not that they knew of. I then asked if they had any saws with cylinder replacements in the past few months. They said they’d had two in the past year. Conversations turned to the fact they have problems with seasonal help mixing fuel properly. A common cause of many experience.

I had to adjust the saw when I first started work and everything, luckily, ran OK with their fuel. You just don’t know, however, the lubrication you are getting until some time passes. I ran the mix for three tanks with no problems.

I started out the third class with 50Fuel. I had to re-adjust the idle and high-speed settings a little leaner. That told me that the fuel from the county possibly had some alcohol in the mix, not so much that it couldn’t be adjusted out, but the other negatives were still in place. Adjustments have to be made if fuel isn’t consistent, as elevation changes and as wear occurs in the engine.

The good thing was that the 50Fuel ran great for the rest of the week, and I know what it has in it. A very reassuring thought!

Premixed fuel may be an answer to many questionable two-cycle equipment issues. Some of the cost of the higher purchase price will be recouped in fewer repair costs over time and stabilized running efficiency. Other benefits may include:

- No mixing mistakes
- No ethanol concerns
- No gas cans – quart bottle convenience – less waste
- Two-year shelf life once opened and up to five-year case life
- No fuel-related issues with plastics and rubber parts
- Consistent carb adjustments and tank vapor pressure
- Fewer emission fumes

Tim Ard is owner of Forest Applications Training, Inc. (www.forestapps.com), a provider of a forestry applications and safety training, and a distributor of 50Fuel (www.50fuel.com).

Premixed fuel may be an answer to many questionable two-cycle equipment issues. Some of the cost of the higher purchase price will be recouped in fewer repair costs over time and stabilized running efficiency.
By Janet Aird

Trumbull Barrett came to own his tree care company, Barrett Tree Service East, Inc., in a round-about way: He studied environmental engineering at Dartmouth College and got a masters degree from the Thayer School of Engineering. Then he apprenticed in his brother’s company, Barrett Tree Service, Inc. in Western Massachusetts. In August 2007, he founded his own company in Somerville, Mass.

“I had a pretty good start,” he says, “probably because I had the luxury of helping my brother in his company. The classes in business school helped on the finance and organizational side. I learned to work with people as well as with numbers.”

A certified arborist and a CTSP (Certified Treecare Safety Professional), Barrett also holds his hoisting engineer’s license so that he can operate a crane if the company acquires one.

“The business is growing pretty quickly,” he says. It includes five full-time employees, including himself, and one who is part-time. One employee is a certified arborist and has his applicator’s license. About half their work is pruning and cabling, 45 percent removal and stump grinding, and about five percent in a new area: organic plant health care, which Barrett’s planning to expand.

The majority of the work is residential. The company does some work for nonprofits, including a bird sanctuary in the suburbs close to Boston, which gives them a chance to work in a less urban setting. At the sanctuary they prune and remove trees in the high pedestrian traffic areas to reduce hazards to visitors, and have done some small-scale clearing for construction projects.

Having a small company allows him to keep his crews busy throughout the year. “It’s great because we haven’t had to lay anyone off, and we can be responsive to customers throughout the year. We’re not often in a situation when we’re with a skeleton crew and we have to pull things together.”

Barrett finds most of his work through advertising, largely because he’s new to the area and had to start his client base from scratch. About 20 percent of his business comes from referrals. He has a page of enthusiastic testimonials on the company Web site, and some satisfied clients have recommended him on Yelp, an independent Web site where customers of any business can post reviews online.

“I try to focus on the customer service side and be responsive,” he says. “Our communications are very clear and honest. For example, when we have a significant backlog, we’re very realistic with clients and we tell them it will be so many weeks before we’ll get to their trees.”

Barrett is very unusual in that he started the TCIA Accreditation process only three months after founding his business. He saw Accreditation as a guide to help him improve business practices and train employees as well as another way for consumers to identify his as a quality...
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company.

“My experience with Accreditation began when I was with my brother’s company, in 2006, at the time it became accredited,” he says. “It opened my eyes to a lot of the processes that benefit a business and employees. Having been through that, I set up the company with Accreditation in mind. I also thought it would be good for marketing, to differentiate the company from others. This is a pretty competitive market. Not being from here, and entering a new market, I thought it would be a good way to get in.”

He already had tree care practices and safety meetings in place before the Accreditation process began. The changes were all on the office end. The hardest part is still making sure all the files are in order. “I have to keep all the paperwork straight,” he says. “Accreditation forced me to be more organized.”

He instituted a formal complaint resolution process, so the company would have steps to go through to track clients’ complaints and reach a resolution. He also made some changes regarding his employees. As part of the Accreditation process, he took the CTSP training course. One part of the course he found especially valuable was learning that different people have different learning styles, and how to teach to those styles. He also learned how to address language issues. Both of these have helped him train his own employees.

He also began doing employee reviews. “It’s been really good to check in with the guys about their goals and find out what they want to work on regarding their professional development,” he says. Two employees are enrolled in the CTSP program and are hoping to take part in a CTSP workshop this spring.

Barrett strongly recommends Accreditation, but not for the reason he originally started with: market differentiation. “For us, it’s been much more internal – employee development, managing clients, keeping in compliance. It’s a great point of pride with our crew to know we’re doing everything by the book.”

Another benefit of being accredited is that the company qualifies for ArborMAX insurance, which provides accredited companies with significant savings on insurance because they meet high standards for safety and performance. Barrett has general liability, auto, workers’ comp, and errors and omissions insurance through ArborMAX.

In spite of his company’s success, he remains modest about its future. “I’m not going to become a millionaire,” he says. “We’re pretty much a one- or two-crew company. I think in the short term we’ll stay like that, then we’ll have to make a decision to go to two to three. We’ve been in business for two years. With the economy the way it is, being able to pay the bills and pay the guys makes me really happy.”

He saw Accreditation as a guide to help him improve business practices and train employees as well as another way for consumers to identify his as a quality company.
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By Rick Howland

Have you formed any new attachments for your skid steers and log loaders? If not, you might want to be thinking in that direction; it’s a perfect time to invest in this kind of capital equipment and reap the benefits of profits through efficiency as you adjust economically and swiftly to changing economic conditions.

We all know we live in an age of doing more with less. Part of that is a negative fact of life – the age in which we live along with the economy we are functioning in. Another part of it, though, is the positive natural and practical evolution of the equipment we use every day. We CAN do more with less.

We’ve seen this “doing more with less” phenomenon occur in most industries as they grow, evolve and mature. Take the computer. Gone are the needful days of large and multiple specialty machines. Nowadays, powerful and compact machines are capable of driving all sorts of devices, driving down costs and driving up efficiencies. Same can be said of the auto industry, with cars getting smaller and lighter, more efficient, cleaner and much easier to operate and maintain and capable of doing more things than getting us from Point A to Point B.

As the equipment end of the tree care industry grows and matures, this natural evolution progresses to virtually everything we do. In the past two years, we’ve written a score or more articles dedicated to the proposition that investing in modern technologies can lead to profit, even in a “down” economy. It’s all about efficiency and versatility – and it holds true with workhorses such as the skid steer and log loader.

On their own they are versatile, economical and virtual brutes at getting things done, so much so that we might overlook the fact that, as productive as they are in replacing labor costs, they still have so much to offer and more “evolution” left in them. That includes both advancement in the tool carrier itself (skidder or loader) and the attachments you can apply for specific tasking.

As far as the main units themselves, the trend is similar to other equipment we’ve reported on. It’s all about getting smaller, lighter, more versatile and nimble, easier to operate and safer, not to mention more comfortable and easier on the operator.

Qualities being sought include:
- the ability of a skidder or log loader to access both smaller and larger jobs with just one main piece of equipment;
- the ability for fewer skilled operators to get the job done and in a world of escalating fuel and other transportation costs;
- the ability to move a strategic piece of equipment into position using less costly, light- to medium-duty tow vehicles and/or trailers, and standard licensing;
- the ability to bid on jobs you otherwise may not have looked into, jobs not directly related to tree care, such as landscaping and lot clearing;
the ability to extend your work season throughout the calendar year;

the ability to deliver a huge return on investment for a comparatively small investment (versus having to purchase a dedicated piece of equipment). Plus, you wring more ROI out of the initial tool carrier investment!

Individually, these may seem small considerations, but they’re ones that nonetheless add up over time. Ignore little things such as these in the current economy and you do so at your own economic peril.

Jon Kuyers, utility product segment manager at Vermeer, notes that there really are two classes of skid steers, the traditional cab-type and the minis. He defines the minis as units that are roughly 36 to 42 inches wide and set up for the operator to either walk behind/beside or stand on. These are ideal for tight spots and the always difficult backyard spaces.

In this business, Kuyers says, the more popular attachments for the mini are the log loader and brush grapple, with the capability of grabbing logs or brush from the yard and taking them quickly and relatively effortlessly to a chipper or trailer. The minis have been around for a decade or more. “These have proven themselves to save tremendous back-breaking labor and costs as they increase productivity,” says Kuyers. Most, but not all, attachments in the mini class are interchangeable from brand to brand.

“What they really do is increase the arborist’s business capabilities. After a takedown, consider if you have to grind up all those materials. You can use a loader attachment to save money by scooping up chips in a fraction of the time it takes to do it by hand,” Kuyers points out. “Furthermore, if the customer wants the stump hole filled in with black dirt, there’s an attachment for that. Another attachment possibility is an auger. Say you’ve cut down and removed a tree and the owner asks you to plant another tree in same location. You can take a tree auger, plunge a 36-inch hole and quickly put in a 3-inch tree replacement. You’ve expanded your capabilities and your potential for business because you are not just cutting and grinding. You’re removing, digging and planting.”

“It all depends on how much you want to expand your business,” he says.

In the mini class, Vermeer most recently introduced a new model at TCI EXPO in Baltimore in November, the S800TX mini excavator/skid steer. “That was in response to customer demand for lifting even heavier logs and branches” says Kuyers. “The smaller units were good, but the industry wanted a beefier machine, but still only 40 inches wide.”

Josh Hegle, Bobcat’s national account manager, says Bobcat within the last year or so introduced a new line of skid steers and compact track loaders known collec-
tively as the M-Class. It’s comprised of the S (skid steer) 630 and 650 and the T (tracked) 630 and 650. New from-the-ground-up designs, these are being hailed by the company as the first wave foreshadowing a broad makeover of the skidder line. The high points are the re-engineered cab, providing greater operator comfort with greater cab-forward visibility, which, in turn, gets the operator closer to the work safely. (Creature comforts include an air-ride seat and radio-ready connectors!) Sound levels in the cab were reduced by 60 percent. Though more compact, there’s improved digging and attachment power, better fuel capacity and economy, and better hydraulic performance, Hegle notes, adding that “tractive” or pushing power is up 15 percent.

For the tree care pro, Hegle points out the versatility of the tool carrier presented by attachments such as the forestry cutter, a big “chomper” capable of taking down and grinding 10-inch trees. There’s an option for the skidder (a requirement for the forestry cutter) called the forestry kit, which provides for added protection for the operator as well as the hydraulic hoses and lights.

“Bobcat is very safety conscious,” Hegle says. “The cutter will not run without this feature,” he adds. The kit includes polycarbonate doors, a muffler guard, front and rear light guards, a fall-over protection structure, radiator screen and debris shield along with quick connect hydraulic coupler guards.

“When they’re not knocking down trees, tree care pros can go to the Brushcat rotary mower, which takes down and mulches smaller trees, weeds and brush, or the flail mower, bigger than a Brushcat but not big as the forestry cutter, according to Hegle.

“We also offer a wheel brush saw, a rotating blade with an 8-foot reach that can cut flush to the ground, plus, stump grinders, chippers and grapples – ranging from a root grapple to large industrial buckets ideal for clearing debris – soil conditioners, post hold diggers, tree spades and back hoes.

At the Baltimore EXPO last fall Bobcat introduced the A300 all-wheel-steer loader, which allows all four wheels to steer for optimum maneuverability. “This is great for landscaping and it has the added ability, with the flip of a switch, to convert to skid steer mode,” Hegle says.

On the log loader side of the equation, Payeur is a major distributor of agricultural and forestry equipment, best known in the tree care industry for its log-loader trailer equipment. That includes a large articulated version, a compact log loader popular among tree care operators, and a versatile hydraulic-driven trailer with a drive system attached to the wheels that helps propel it at very slow speeds, which can be especially good in off road situations or tight spots.

Mike Miller sales rep for the company, says “Popular add-ons include the winches and articulated arms with grapples. With cable lengths of 110 feet, winches mean operators have to move the equipment less because they can bring the work to the loader. Plus, the extended boom provides for hydraulic extensions for greater reach to get at materials not too far from the trailer. All of this speeds up work safely.”

“Attachments for these trailers,” he says, “are focused mainly on grapples, the capacity of which differs according to need.”

“We make a variety of trailer sizes with a variety of grapple attachments. Mostly it is the over-the-road trailers that are popular with tree care guys, and we offer three dis-
tinct sizes for them. The compact is the smallest, designed to be towed behind a pickup so you can move into a customer’s yard with a trailer and load up easily,” says Miller.

John Such, president of Hawk Equipment Corporation, had an interesting and cautionary tale to tell about selecting and using attachments. Hawk supplies grapples capable of grasping about a 1/6 of a cord, volume-wise, to clamshells capable of grabbing up to a few yards of material.

“As far as log loaders and grapple attachments are concerned, one needs to be very careful with selection and use,” says Such. “Let’s say a tree care guy has a 20 foot boom with a couple of hydraulic attachments and opts for a larger auger. He will need to check the machine rating to make sure he does not overuse the attachment. The attachment capacity may be greater than that of a machine. Here is where you can get in trouble. Even if you get the job done safely, there is always the inherent risk of compromising the chassis or other structural elements of the equipment with small fractures that can lead to failure in the future.”

“We do not offer attachments, such as an auger, for our log boom because of the rotational torque requirements. In our business, we are picking up tree pieces and swinging them at low speed and with less torque than required for an auger,” he says.

Such says of attachments, “The more the better, as long you use attachments within stated parameters.”

Don Ryan, owner and president of Ryan’s Equipment, makes attachments for virtually every kind of tool carrier in use.

Roger Venner, owner of Predator Tree Service in Middlesex, New Jersey, using Ryan’s Equipment’s 6072 grapple to clear downed trees.

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“Attachments are what enhance productivity. They cut work hours and minimize labor going in, and we are seeing that everywhere, right down to every grapple we build, and we build nine different sizes.”

Ryan’s products also include Ryan-branded shear heads, saw heads in several sizes, buckets, stump grinders and mulchers, and the company does R&D in the attachment area for other brands.

“Times are tough. Most customers are calling wanting attachments that will cut man hours and shorten job time just to be competitive,” Ryan says. “We’re also seeing some guys going in new directions to get more and better business, like tree guys wanting more versatile equipment so they can get into small forestry jobs, and forestry guys looking to get into other areas as well.”

Toro recently introduced its new gas-powered Dingo TX 427 compact utility loaders in narrow and wide track models. They feature increased torque for pulling and digging courtesy of a stout 27 hp Kohler engine. The 427 line succeeds Toro’s TX420 and 425 models.

“We’ve simplified our lineup by offering one model in either narrow or wide track design, beefed it up with a more powerful engine, and increased the power-to-weight ratio for improved job-site efficiency,” says Greg Lawrence, marketing product manager for Toro. Both TX427 units are compatible with Toro’s line of compact utility loader attachments.

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14 Soil modification practices

14.1 Soil modification objectives shall include, but are not limited to, one or more of the following:
- Protect existing roots;
- Enhance root development; and,
- Maintain tree health.

14.2 Soil modification practices shall include one of more of the following:
- Evaluating site soil conditions;
- Managing soil organic matter content; and,
- Prevention and mitigation of soil compaction.

14.3 Evaluating site soil condition practices

14.3.1 Site and soil evaluation objectives shall be established.

14.3.2 Site and soil evaluation items should include, but are not limited to, the following:
- Site topography – surface and subsurface drainage;
- Soil drainage (infiltration and percolation);
- Soil texture;
- Soil profile;
- Soil structure (bulk density);
- Soil depth;
- Presence of impermeable layers and height of water table; and,
- Organic matter levels.

14.3.3 Soil and site physical characteristics should be assessed prior to designing, planting and or developing management plans for landscapes.

14.3.4 Soil testing should be done prior to designing, planting and or developing management plans for landscapes.

14.3.5 The number of samples to be collected should be specified and should be representative of the site, see Annex B.

14.4 Managing soil organic matter content practices

14.4.1 Soil organic matter content management objectives shall be established.

14.4.2 Objectives shall include, but are not limited to, one or more of the following:
- Maintain soil organic matter at an adequate level for the plant species at the site.
- If soil organic matter content is low, organic materials should be incorporated into the soil or applied to the surface as mulch.
- When organic matter is incorporated into the soil, compost should be used.

14.5 Prevention and mitigation of compaction practices

14.5.1 Objectives for prevention and mitigation of soil compaction shall be established. Objectives should include, but are not limited to, one or more of the following:
- Maintain or improve soil aeration;
- Maintain or increase water penetration (infiltration rate) and percolation;
- Maintain or enhance water-holding capacity and drainage;
- Maintain or improve ease of root penetration; and,
- Maintain or reduce surface runoff and soil erosion.

14.5.2 Methods to mitigate compacted soils shall be specified. Methods include, but are not limited to:
- Mulching;
- Incorporation of soil amendments;
- Mechanical loosening (cultivation); and,
- Loosening using high pressure air.

14.5.3 Measures should be taken to prevent or minimize soil compaction while working within the root zones of trees and woody plants or where landscapes are planned.
14.5.4 Activities on wet soils should be avoided or preventative actions shall be taken to avoid compaction.

14.5.5 Soils with surface compaction in areas where landscapes are planned should be amended with organic matter following mechanical loosening to the depth of soil compaction.

14.5.6 Mulching should be considered an effective long term means to treat compacted soil within the root zones of trees and woody plants.

14.5.7 Surface application of organic mulch

14.5.7.1 The objectives of mulching shall be established. Objectives should include, but are not limited to, one or more of the following:
- Inhibit weed growth;
- Conserving soil moisture;
- Moderating soil temperature extremes;
- Preventing and alleviating soil compaction;
- Preventing soil erosion and surface crusting;
- Improving the soil structure and fertility;
- Encouraging beneficial soil microorganisms;
- Inhibiting certain root pathogens; and,
- Increasing root growth and plant vigor.

14.5.7.2 Types of mulch and methods of application shall be specified to meet the objective.

14.5.7.3 When selecting the type of mulch, consideration should be given to tree species, soil conditions, irrigation practices, and pathogenic fungi.

14.5.7.4 Fresh or partially composted coarse (greater than ¾ inch average wood particle size) wood-chip mulch from trees should be preferred when the objective is to improve soil structure and enhance soil biological activity.

14.5.7.5 Fresh wood-chip mulch that is known to cause an allelopathic response in the plants being mulched, to be contaminated by a transmittable disease, or to contain seeds of undesirable plant species should be avoided.

14.5.7.6 The ignitability of mulches shall be considered.

14.5.7.7 Impervious plastic sheeting shall not be placed under the mulch.

14.5.7.8 Pervious fabric or sheeting should not be used under the mulch when the objective is to improve soil structure and increase organic matter content.

14.5.7.9 Mulch shall not be placed against tree trunks.

14.5.7.10 Mulch should be applied over as much of the root zone as practical.

14.5.7.11 Mulch should be applied and maintained at a depth of 2-4 inches (5-10 cm).

14.5.8 Incorporation of soil amendments

14.5.8.1 Soil amendments specified should be appropriate for the chemical and physical characteristics of the site soil and to meet the objective.

14.5.8.2 When re-compaction is a concern, structural amendments, based on soil texture, shall be specified to meet objectives.

14.5.8.3 Non-composted woody materials shall be avoided when incorporating into the soil.

14.5.8.4 Composts, when used as soil amendments, should be tested by a qualified lab for chemical properties, such as pH and salt index.

14.5.8.5 Soil amendments should be incorporated into the soil after mechanical loosening of the soils has been completed.

14.5.8.6 Soil amendments should be incorporated throughout the layer of compacted soil.

14.5.8.7 Sand should not be considered as a soil amendment for clayey soils unless it will exceed 50 percent of the soil volume following amendment.

14.5.8.8 Gypsum should not be considered an effective amendment for mitigation of soil compaction for soils with high calcium content or excessive sodium (sodium adsorption ratio > 6).

(Continued on page 46)
93.4 Levels of risk assessment

93.4.1 The level and detail of tree risk assessment shall be specified.

93.4.2 If defects that cannot be adequately assessed are detected during survey or basic inspection, an advanced assessment should be recommended.

93.4.3 One or more of the following inspection levels shall be specified:

93.4.3.1 Level 1 risk assessment – survey

93.4.3.1.1 Level 1 shall be a limited visual assessment of an individual tree or a population of trees to identify specified conditions or defects.

93.4.3.1.2 Conditions to be identified should include obvious defects.

93.4.3.1.3 Level 1 assessment shall be from a limited, specified perspective, such as drive-by, walk-by, aerial patrol.

93.4.3.1.4 A Level 1 – survey assessment methodology shall be specified.

93.4.3.1.5 Periodic assessments, monitoring, and follow-up recommendations should be made based on the outcome of the assessment and the objectives.

93.4.3.2 Level 2 risk assessment – basic

93.4.3.2.1 Level 2 assessments shall include a 360-degree, ground-based visual inspection of the tree crown, trunk, above-ground roots, and site conditions around the tree.

93.4.3.2.2 Use of hand tools, trowels, binoculars, or probes, shall not be precluded from a Level 2 assessment.

93.4.3.2.3 A mallet or other tool should be used to sound the trunk, root collar and above ground buttress roots in order to detect large hollows and loose bark.

93.4.3.2.4 Level 2 shall provide a detailed visual inspection of a tree(s) to

Part 2: Soil Management

(Continued from page 45)

14.5.9 Mechanical soil loosening

14.5.9.1 Compacted soil should be mechanically loosened before adding topsoil.

14.5.9.2 The depth of the compacted layer to be loosened shall be specified.

14.5.9.3 Pneumatic soil excavation should be considered the preferred method to loosen compacted soil within the root zones of plants.

14.5.9.4 Compacted soils should be moist before being loosened using pneumatic excavation tools.

14.5.9.5 Moisture content of compacted soil should be less than field capacity before being mechanically tilled.

14.5.9.6 Under existing plants, compacted soils should be loosened using the least injurious method to meet the objective.

14.5.9.7 Under existing plants, when mechanical loosening of the soil is impractical, organic mulch should be applied to mitigate compaction in time.

14.5.9.8 Under existing plants, compacted soil should be remediated within the affected root zone area using methods that minimize injury to roots. Remediation includes one or more of the following:

- Loosening;
- Amending; and,
- Replacing.
detect the conditions specified and tree defects in relation to surrounding targets.

93.4.3.2.5 A basic assessment should include the identification of conditions indicating the presence of structural defects including, but not limited to:
- Dead, diseased, broken branches, stems, and roots;
- Weakly attached branches and codominant stems;
- Mechanical damage and cracks into the wood;
- Abnormal growth such as swelling, ribs, flat areas, or seams;
- Indications of decay and cankers;
- Root plate lifting, abnormal trunk flare, lack of trunk flare, soil cracks, grade change, restricted or undermined roots;
- Unusual tree architecture including lean, low live crown ratio, poor taper, and crown asymmetry.

93.4.3.2.6 Level 2 inspections should be considered annually; more frequently if species, tree size, tree condition or other factors indicate a need for a more frequent interval. Scheduling inspections shall be the responsibility of the tree owner.

93.4.3.2.7 Monitoring and follow-up recommendations should be made based on the outcome of the assessment and the objectives.

93.4.3.3 Level 3 risk assessment – advanced

93.4.3.3.1 Level 3 assessments shall include all Level 2 requirements.

93.4.3.3.2 Level 3 shall include advanced method(s) to provide more detailed information on tree structural strength, the extent of specific structural defects, conditions, or other factors in relation to a target.

93.4.3.3.3 Level 3 assessment shall include, but is not limited to, one or more of the following tree assessment techniques:
- Aerial assessment of branch or stem defects;
- Drilling;
- Evaluation of target risk;
- Increment boring;
- Investigation of tree or site history related to possible or defined defects;
- Lean assessment;
- Probing;
- Pull testing;
- Radiation assessment (e.g. radar, x-ray, gamma ray);
- Resistance drilling;
- Sonic assessment;
- Sounding; and,
- Sub-surface root and/or soil assessment.

93.4.3.3.4 Tools and work practices that damage the tree beyond the scope of normal work practices shall be avoided.

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Man killed cutting firewood
A man died January 1, 2010, in Malden, West Virginia, when a tree fell on him while he was cutting firewood. Stephen Crowder was using a chain saw to cut the tree and the tree came back on him, pinning him to the ground. Crowder’s brother-in-law was with him in the woods and called 911. Firefighters used airbags to lift the tree off of Crowder, according to a www.wsaz.com report.

Sent in by Paul M. Mautz, CTSP, City of Southfield, Michigan.

Trimmer injured when bucket hits power lines
A man working for a tree-trimming service in Middletown, Maryland, was seriously injured January 5, 2010, when the bucket in which he was working made contact with power lines, Gregory Bostian, 46, of Thurmont, Md., was operating the bucket trimming a tree when a branch became caught in the controls of the bucket, according to The Herald-Mail. This caused the bucket to move toward nearby power lines. The bucket became entangled in a neutral line that was just below 7,200-volt power lines, then moved up into the power lines.

Bostian was flown by helicopter to a Baltimore medical center following the incident, but his injuries were not believed to be life-threatening.

Farmer killed cutting tree
A Marion County, Missouri, grain and livestock farmer was killed January 11, 2010, while cutting a tree on his farm about 10 miles northwest of Palmyra.

Duane L. Peuster, 62, of Palmyra, was alone in a pasture about a half-mile from the nearby road, according to a www.whig.com report. He had topped the tree and then cut off the large tree at the trunk. The 12-foot log apparently started to roll down a slight incline and hit Peuster, probably killing him instantly. He was found by a family member. He was pronounced dead at the scene.*

Worker killed removing tree
A tree worker was killed January 14, 2010, when he fell from a tree that he was hired to remove at a home in North Richland Hills, Texas.

Bobby Gaddy, 46, of Saginaw, Texas, was hired to remove a tree in the front yard of a one-story home. The tree was about 30 to 40 feet high, with a base of about 30 inches. He was part of a four-man crew on the job, according to the Starr-Telegram of Forth Worth.

They apparently made cuts at the base of the tree before realizing that some higher limbs could fall on the house. Gaddy got on a ladder, about 15 feet off the ground, and started cutting away the limbs. Suddenly, the tree snapped at the base and fell. Gaddy was knocked from the ladder and pinned under the tree. He died from his injuries.

Arborist falls to death
The owner of a Canadian tree business plummeted at least 36 feet to his death January 20, 2010, while felling a tree in Peterborough, Ontario.

William Robinson, 60, was tied-in high up in the maple and had made a v-notch (face cut). But the tree was actually rotten where he had tied in, so when the pressure was put on the winch to pull it in the direction of the notch, it just snapped off, the victim’s son and co-worker reported. The elder Robinson was tied to the piece that fell, so it drove him down, Bill Robinson Jr. told The Peterborough Examiner. Robinson was an experienced arborist who started the family business in 1977.

A homeowner had called the company to remove what they had said was a dangerous tree.

Worker injured by fall, power line
A worker in Palm Beach, Florida, was injured January 19, 2010, after falling off a ladder and hitting a power. The middle-age man was trimming a palm when he fell about 10 feet. He was reported breathing and conscious with wounds on his hands, shins and ankles from contact with the live power line, according to the Palm Beach Daily News.*

Accidents in the tree care industry that occurred during the month of January 2010. Graphic compiled from reports gathered by, or submitted to, TCIA staff.

(Continued on page 57)
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- July 21-22
  Chicago, IL
  In conjunction with ISA Annual Conf.

- Aug. 18-19
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Trees in the urban landscape need professional care as much or more than trees in suburban and rural areas. The TREE Fund is taking an active role in connecting this need with young inner city adults in search of a career path through the MillionTreesNYC Training Program.

Thanks to the TREE Fund and the generosity of four partnering companies, 33 eager young men and women from New York City’s MillionTrees Training Program spent five frosty days in December getting hot tips to improve their knowledge of arboriculture. To make this all happen, professional training services and equipment were donated by Asplundh Tree Expert Co., Bartlett Tree Experts, The Davey Tree Expert Company and STIHL Inc. to support this public/private ‘green jobs’ initiative.

The MillionTreesNYC Training Program, managed by the NYC Department of Parks and Recreation and New York Restoration Project, provides paid on-the-job forestry, ecological restoration and horticulture training to unemployed young adults. The mission is to provide tangible, job-ready skills to the trainees and to help assure that city trees are cared for by trained citizens and arborists. The partnering companies ultimately benefit from getting to know these highly-motivated potential employees, in addition to receiving some good publicity generated by the NYC Parks Department.

“What’s really been great is that we’re all working together to provide practical arborist training and promote safety,” said David McMaster, TREE Fund president. “It’s been a truly cooperative effort between Asplundh, Bartlett, Davey and STIHL, with great support from the New York City Parks folks.”

The TREE Fund was the catalyst for this public/private partnership, with special credit due to David McMaster of Bartlett Tree Experts and Matthew Wells of the NYC Department of Parks and Recreation and TREE Fund trustee. They facilitated the collaboration that led to these trainees receiving time, knowledge, skill and equipment from the ‘best of the best’ in the industry. The companies listed above provided two weeks of free instruction, as well as tools and materials to supplement the participants’ on-the-job training. The first week took place December 9-11 and 16-17. It began with a day of classroom and hands-on instruction in safe chain saw operation and maintenance at the North Meadows Recreation Center in Central Park.

The next two days took place in Randall’s Island Park where the trainees learned about limbing, bucking and tree felling procedures while practicing their chain saw skills under the guidance of professional trainers and experienced operators. The last two days were back in Central Park with instruction on tree biology, species identification, nursery stock selection, proper tree planting, principles of plant health care, basic pest and disease information, tree inspection and hazard evaluation.

Amicha Tsogbe, 19, hails from Harlem and is the only woman in the 11-member arboriculture track. There’s a higher ratio of women in the other two tracks — ecological restoration and landscaping. Amicha said she’s a little worried about the heights when it’s time for her to climb, but she is so busy learning and working with her fellow trainees that she knows she will get through it.

**2010 STIHL Tour des Trees Announced**

The TREE Fund is very pleased that STIHL Inc. has once again signed on as the Tour des Trees title sponsor. Rider registration opened January 4 for the 2010 STIHL Tour des Trees, which has been nicknamed “The Chicago Loop.” Kicking off in Chicago’s Millennium Park July 18, the Tour will head north and west to Iowa, traveling along the Mississippi River until it loops back to a finale on July 24, during the ITCC in Chicagoland’s Morton Arboretum.

For more information, visit www.stihltourdestrees.org.
Industry needs to act now on safety, licensing

This letter was sent to the ASCA listserv as a response to a post about a tree worker getting killed, and is reprinted here by request of the letter writer.

I’m sorry to hear about another fatality in the tree care industry. I’m afraid that this will continue to be the norm until the whole tree care industry takes more measures to correct the problem.

I am a proponent for licensure in all 50 states for tree care companies and arborists. New Jersey just passed state licensing for tree services and arborist, as I understand it. Until we get some sort of regulation/licensing on a state by state basis, we will continue to be under the scrutiny of OSHA, more workers will continue to get killed, and our profession as professional arborists will continue to be likened to the fellow with a pick-up truck, chain saw and Rottweiler looking for Friday’s beer money. There is no licensing in most states that regulates specifically the tree care industry.

We have more than 80 professions in Idaho that require a state license to operate within that particular profession. Tree Care is not one of them. I have posted on some of the arborist forums about licensing and the response has been a resounding “No – we won’t have it!” I believe the reason for this is that there is a tremendous amount of illegitimacy, lack of compliance and illegal operations that do not comply with state, federal and local laws that already exist.

Why is it that after five years we only have 142 TCIA accredited companies’ nation-wide, and many of those are the large companies that have multiple (320 accredited facilities total) locations? How many arborists have availed themselves to the TCIA Certified Treecare Safety Professional credential? The ISA, in their certified arborist program, tests on safe working procedures, as well as other domains critical to being a professional arborist.

I believe our industry has come a tremendous way in the last 20 years. We have made great strides in safety, training material, ANSI standards, certifications and BMPs. I see no reason why we cannot take the next step as professional arborists in our respective states and strive for a state licensing program for tree care companies and arborists.

My hat is off to the arborists in New Jersey. I hope you and other states that have an “effective” licensing program can lead the way for the rest of us. TCIA – can you help us?

Tim Kastning, CTSP, BCMA, president Grace Tree Service, Inc.
Hayden, Idaho

The story behind the picture on the cover

The image shows, and was sent in by, Brian Mann, BCMA, vice president with The Tree Mann Inc. in La Porte, Indiana, a TCIA accredited company. Here is how Brian explains the job:

The tree broke off and fell into the other tree near the house. It hit with enough force that it damaged the gutter and the eave of the house. We installed rigging in the large tree that is close to the camera to keep the log from falling toward the house. I inspected the tree near the house and, since the ground wasn’t heaving and there were not any cracks in the trunk, we decided that it was safe for me to climb this tree. The rigging had to stay low because of power lines so we decided to put tag lines on the trunk to keep the log from swinging to the side.

The rope that is lowest on the log is set up in the large tree to keep the log from going toward the house. The next two ropes above it are the tag lines to keep the log from swinging to the side. The orange rope is my climbing line and the rope behind my back and going up to the right is to keep me in position to make the cut. This rope is through a natural crotch and secured at the base to a GRCS.

The only rope that is in this photo that I haven’t talked about yet is the green rope to the left side of the photo that starts about a third of the way up on the left side of the photo and goes up to the right. This rope is securing the upper portion of the log so that it doesn’t fall on the roof when I make the cut.

The tree before being rigged.

After the crew had all of the ropes on the trunk installed and secure I ascended into the tree to begin removing the brush. The brush had to be lifted into the tree that I was tied into with a GRCS then drifted into the tree in picture 030 with the GRCS on it to get the brush away from the house. As I removed the brush and the smaller wood the tree that I was tied into began to straighten and get farther and farther away from the house. After everything that could be cut was cut I installed the rope to secure the upper part of the log and the rope to hold me in position and made the final cut. Everything came down without a problem.

The only rope that is in this photo that I haven’t talked about yet is the green rope to the left side of the photo that starts about a third of the way up on the left side of the photo and goes up to the right. This rope is securing the upper portion of the log so that it doesn’t fall on the roof when I make the cut.

Nothing.
TCIA Safety Awards honor companies and individuals for rescues and training

The 2009 TCIA Safety Awards were presented on Safety Day at Winter Management Conference in Hawaii in February.

One of TCIA’s outcomes in the Transformation of the Industry is to lower the accident rate and improve worker safety. Our Safety Awards recognize both outstanding contributions of companies and the heroic actions of their employees in this regard.

Outstanding Individual/Crew Performance: 2 awards

1) Sean Schanbacher, a PHC technician for Bartlett Tree Experts in Pennsylvania, was preparing to service a client’s property August 10, when he noticed an individual in obvious distress, laying in the sideyard at a neighboring home. The victim had taken a bad fall off a ladder, sustaining a head injury, numerous deep cuts and a compound fracture of his arm. Keeping his composure, Sean called 911, retrieved his first aid kit and commenced treatment. Sean made a second call to 911, and began treating the victim for shock. In the 12 minutes that it took paramedics to arrive and take over, Sean very likely saved the victim’s life with his actions.

2) Robert Wells of Townsend Tree Service was surveying a transmission line in rural Georgia November 6 when he heard over his radio that a climber from another tree service in the area had fallen out of a tree. Being close by, Robert went immediately to the area, located the victim and called 911, then flagged down assistance at a nearby highway. EMTs could not traverse the rough terrain to reach the victim, so Robert and his crew created a makeshift stretcher with a tarp and transported the victim to where the EMTs could render aid. The victim had a broken rib, dislocated hip and hairline fracture in his neck. Robert’s assistance helped overcome the language barrier, which had prevented the victim’s crew from being able to summon aid.

Outstanding Company Contribution: 5 awards

1) Lucas Tree Experts in Portland, Maine, rededicated itself to safety in 2009 by implementing or enhancing at least 15 separate safety initiatives company-wide. As evidence of its efforts, three out of the four members of its safety department became CTSPs in the past year, and Lucas experienced a 25 percent reduction in its OSHA-recordable injuries.

2) S & S Tree Specialists in South Saint Paul, Minn., created and implemented an innovative aerial rescue training session this past spring. The brought in Dr. John Ball to lead and facilitate the session. Crews spent the afternoon practicing and perfecting rescue techniques. An EMT provided input on medical considerations as scenarios were presented to participants.

3) Townsend Tree Service highlighted safety as its number one core value and took several decisive steps to reinforce its philosophy internally, including: posting its values in every office, expanding the safety department training resources with two mobile training units, starting a weekly safety newsletter, implementing weekly field manager conference calls, and devising an safety incentive program that evaluates attitude, behavior and performance criteria.

4) University of Massachusetts & Bartlett Tree Experts entered into a joint research project in the aftermath of a serious accident at another company in which an employee severed a climbing line with a hand saw. The gist of the project with Dr. Brian Kane at UMass was to look at the propensity of various climbing lines to be cut by hand saws under real-world parameters of rope tension and saw force. Bartlett funded the work, participated in the actual experimentation and shared all results with the industry.

5) Vine & Branch, Inc. continued its long-standing commitment to hazard tree recognition and awareness through an extensive campaign of speaking engagements, writing efforts, and one-on-one education at consumer and industry trade shows. In 2009 alone, V & B representatives went to five shows, spoke on 13 occasions, and were published numerous times. They continued to build their Web presence concerning hazard trees. Twice they taught a pro bono seven-hour course on their tree inspection program.
Employee Safety Improvement Action Plan Form

Nobody likes disciplining workers for infractions of safety rules, but in reality, progressive disciplinary procedures can improve safety, compliance and even morale.

The “write-up” is an intermediate step in most progressive disciplinary processes. It is the step that is documented in permanent employee records, and it is the step that documents your enforcement procedure to an outside observer, such as the OSHA compliance officer.

This month’s member giveaway, included with the March Reporter, is a two-part form – the Employee Safety Improvement Action Plan Form – to make that written warning for a safety infraction a little easier and more effective for all concerned. One copy is handed to the employee and the other is filed.

Put it in writing! Whether you use this giveaway to create your own written warning document or you order additional copies (pads of 25) from TCIA, you will be more clearly conveying your expectations to employees and helping to protect your company from OSHA citations. If you have even one employee, you would be well advised to implement a formal disciplinary procedure.

See the free copy included with the print version of the March Reporter. For additional copies, visit our online store at www.tcia.org, or call 1-800-733-2622.
Attendees at a member luncheon held January 6, 2010, at the Minneapolis Convention Center in conjunction with the Northern Green Expo included, from left, Larry Molizdak, All Seasons Tree Service & Snowplowing, a new member; Steve Sylvester, S&S Tree and Horticultural Specialists and TCIA Board member; David Lee, TCIA membership director; Paul Buck, Plymouth, Minn., city forester and an enthusiastic Accreditation supporter; and Brian Roelofs of Sherman Insurance, an Associate Member and ArborMAX agent.

Meet TCIA staff at this March event...

- March 27-30, 2010
  ISA Southern Chapter Conference
  Concord, NC

Members are encouraged to seek staff out at these events for information on TCIA programs or just to say hello. For details and other scheduled events, contact Dave Lee at 1-800-733-2622 or lee@tcia.org.
2010

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Grants to help remove ash trees in Ohio communities

Federal grant funds totaling $400,000 will be provided to the city of Toledo to fund the removal of hazardous ash trees, according to the Ohio Department of Natural Resources, Division of Forestry. These trees pose a threat to the safety of residents in areas of the city most heavily impacted by the emerald ash borer.

“Funding will help support the costs associated with removing the hazardous ash trees along Toledo’s streets and public grounds,” said David Lytle, chief of the Division of Forestry.

Since 2003, more than 7,500 dead or dying ash trees have been removed from Toledo’s city streets. This figure does not include the numerous ash trees that are still standing and threaten public safety. The federal funds set aside for this program will allow the city to continue this work.

Federal grant funds are currently available to assist many northwest Ohio communities in removing hazardous ash trees along public rights-of-way and replacing lost tree canopy cover, according to the ODNR. “This two-year effort will help restore tree canopy safety and watershed health within the Western Lake Erie Basin affected by the emerald ash borer,” said Lytle.

$2.49 million grant to develop plant ID tools

What if you could walk into the woods – or onto a job – see an interesting plant, pull out your cell phone, connect to the Internet, identify the species and access a wealth of information about it? The National Science Foundation has awarded a four-year grant totaling $2.49 million to New England Wild Flower Society for just that – Go-Botany: Integrated Tools to Advance Botanical Learning.

Go-Botany is a multi-faceted project, including the creation of an online state-of-the-art plant identification key for all New England flora. It will build upon the upcoming New England Wild Flower Society publication, “New England Flora,” the first comprehensive botanical reference of the region’s plant taxa to be published in the last 25 years.

The Web site will employ three separate types of keys, so that users will be able to access information compiled from multiple sources to identify a plant to the taxon level (usually species level) using the key best suited to their ability. Once the user works through a key, they will arrive at a “Taxon Page,” which will contain color photographs, maps, links to other sources, and a wide range of additional information about the plant. The three distinct keys will be built in the style of an Application Program Interface so that other institutions can plug the tool into their systems for plant identification. The user interface (UI) will also display Taxon Page information in an easily-browsed format, with expandable topic tabs, enlargeable photos, external links to other resources, and internal links to closely related species. The UI will facilitate a user’s own research by supporting queries and allowing results to be tabulated and saved.

“This four-year grant will enable us to develop and test teaching techniques using innovative technology with plant, education, and citizen science communities,” said Frances H. Clark, New England Wildflowers’ Board of Trustees chair.

Purcell fills void behind Holt and McKenzie at Purdue

Harvey Holt and Rita McKenzie have retired as urban forestry specialists at Purdue University. Lindsey Purcell, urban forestry specialist, has been hired to run the arboriculture program at the W. Lafayette, Indiana, campus. Holt and McKenzie were active for many years with getting students involved with TCIA’s Student Carrer Days training and education program.

Holt started the urban forestry/arboriculture program when hired in 1975 as professor in the Forestry Department. McKenzie came on in 1996 as urban forester, and was administrator for the Indiana chapter of the ISA. They have fully retired from their positions, but maintain professional affiliations and various committee positions in the industry.

Purcell started at Purdue’s Department of Forestry and Natural Resources in August 2009, when the position was vacated by McKenzie’s retirement. His duties include teaching Arboricultural Practices, and Urban Forestry Issues classes, as well as assisting with tree care and arboricultural issues in the Cooperative Extension Service. He will also serve as executive director of the Indiana chapter of the ISA.

Tree company produces decay detection video

A Wisconsin tree care company, with funding from the U.S. Forest Service, has completed an educational video on methods to detect tree decay without harming trees. Allison Tree Care, Inc. of Verona, Wisc., published the results of its project, “Promoting the Use of Non-Destructive Testing Technologies for Increased Productivity and Public Safety.” An Internet video developed to present this knowledge in a visual, coherent and user-friendly, educational format can be viewed at: www.nrri.umn.edu/cartd/forestp/treedecay.htm.

The educational presentation familiarizes tree managers with procedures to detect internal decay in standing trees. The method uses a combination of visual inspection along with acoustic and micro-drill tools.

Allison Tree Care is owned by R. Bruce Allison, who is also a consulting arborist and adjunct professor of Forest and Wildlife Ecology at the University of Wisconsin, Madison. Allison developed the video in cooperation with Dr. Xiping Wang of the University of Minnesota.

This project gathered and presented information about currently available methods and techniques for decay and defect detection in standing trees. It was funded in part by a $43,000 U.S. Forest Service Wood Education and Resource Center grant.
Having a soul in Indiana

Marie B. Hawkins’ “Was it really Worth 20?” (From the Field column, TCI, February 2010) was fun and brought to mind several characters I have met and worked with on several jobs. In her last graph, Ms. Hawkins mentions that Jake has a “brave sole.” Best bet, Jake has two, but only one soul.

Thanks again for the great coverage!

Accident briefs

(Continued from page 48)

Firefighters rescue trapped trimmer

Firefighters in Cerritos, California, rescued a tree trimmer who became trapped in a 60-foot palm January 27, 2010. Rescue crews used a ladder to get to the man, who had become trapped by giant palm fronds and was losing consciousness. It took firefighters about an hour to rescue the worker. He was loaded onto a basket and carried down the rescue ladder. The man was taken by ambulance to the hospital with serious injuries, according to a www.ktla.com report.*

Two injured in car/truck accident

Two people were injured in a car crash in Rockland, Maine, January 29, 2010, when a driver lost control of a vehicle on the icy road and it spun into a parked tree-trimming truck. The driver of an older model Jeep Wagoneer lost control and hit the tree truck. Two people had minor back and neck pain and were taken to Penobscot Bay Medical Center. A person in the bucket of the tree truck was not injured, according to the Bangor Daily News.*

* Sent in by Paul M. Mautz, CTSP, City of Southfield, Michigan.

Send local accident reports to editor@tcia.org.
I have always been partial to trees. As a child I liked to climb slender maples on windy days and ride them like carnival rides.

Later I constructed dozens of tree houses, beginning with my own yard, but quickly appropriating trees on vacant lots or those belonging to my less observant neighbors. Though my mother admonished me for trying to break my neck, it was a tree that once, I am certain, saved my life.

When I was 9 years old, I took a notion to do a little trespassing through a nearby pasture. I had it on good authority from a 10 year old that there was a cave located on the other side. This was south-central Kentucky, and the land was pockmarked with unknown caves, unknown except to old gangs of outlaws who may have hid their loot in one. With dreams of riches, I took a flashlight and my brother’s beagle, Toby, and set off.

I scrambled between the three-strand barbed wire and started across a pasture, Toby running ahead of me, a slave to whatever scents his nose was snuffing up. He disappeared over a low rise, and I kept trudging along. A minute or two passed and Toby reappeared over the brow of the hill, running as fast as his short legs would take him, his white flagged tail tucked firmly beneath him. He ran past me without a glance and continued on through the barbed wire fence and out of sight. As I turned to face the low rise from where he’d come, I could simultaneously hear and feel the ground pounding.

Over the hill, like a swarm of helicopters from the movie Apocalypse Now, came a herd of beef. Angry cows, that is. I looked back to the fence where my brother’s cowardly dog Toby had already disappeared into the thick underbrush. Though I’ve owned a beagle since, I never fully trusted them again. The cows (at the time I assumed they were all rabid bulls) were gaining and the fence was too far away.

Then I noticed the tree. Tall and majestic with low symmetrical limbs, an eastern white pine was just 50 feet away. I made good time and had clambered 20 feet high before the crazed herd of Holsteins had me surrounded. They milled around the foot of the tree for a long while, snarling and stomping, comparing recipes of how to best consume a 9 year old once he fell out of a tree. But I was hanging on for dear life, and had even located some branches growing close together where I might conceivably be able to sleep without falling. I wondered how long it would be before my parents noticed I was missing and come to look.

Well before sundown the angry herd lost interest and wandered back to the other side of the pasture. I took my opportunity and ran home, promising myself I’d never get farther than a quick dash from the edge of a pasture again.

When I finally got home, Toby was sleeping on the couch, having completely forgotten about me or anything he may have learned watching Lassie reruns.

While I may have temporarily lost all faith in beagles, I gained an abiding respect for Pinus strobus. Though not the most comfortable place to spend an afternoon, in those circumstances, I cannot think of a more welcome one.

Richard Hefley is a certified arborist and consultant for homeowners, homeowner associations and local governments in and around Nordland, Washington.
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